

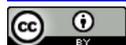
# Monumental Behaviorism and Courageousness in Industrialized Economies Central Banks for Developing Economies Lessons

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## Abstract

**This paper looks for the monumental behaviorism and courageousness in the industrialized economies central banks' monetary tools policy including interest rate policy and exchange rate regime is necessary to promote and boost the economic systems. The goal of paper is in a favor of the developing economies central banks to hail the comparative advantage from industrialized economies central banks functions and responsibilities, definitely in a usefulness to produce economic growth, high-employment, low-inflation targeting, price stability, and to mitigate credit defaults, financial risks, and volatility of assets price. This is of great importance for the effects of the central bank obligations on the positive outcomes such as economic growth, sustained macroeconomic parameters and constant financial sectors.**

## Keywords

**Interest Rate, Exchange Rate Regime, Economic Growth**

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## 1. Introduction

As we have known that the regulation and law provides that the central bank has fully rights and powers to pave the way of financing for development of economics, financial and non-financial sectors when they need intervention that is an impulse to a progress in society and stability of growth of nominal GDP. The industrialized economies central banks functions and monetary instruments policy are significantly potential resources vitality to promote and boost the real and non-real sectors, importantly as in the process of three force drivers: 1) export-

driver; 2) investment driver; and 3) consumption driver. Objectively, to ensure the constant macroeconomic development and economic growth fairly, with the significant concessional monetary policy measures of the lender of last resort (LOLR), interest rate policy, and exchange rate regime, the central bank has provided liquidity (cash) for the contribution into the national economy with a several measurements of monetary policies. [Dafe, Florence/Ulrich Volz \(2015\)](#) found out that the advanced economies central banks played the important roles in rebuilding their economies following the Great Depression and the Second World War by utilizing a variety of credit allocation techniques, which were supported by capital and exchange controls. [Esptein \(2006\)](#) says that throughout the early and recent history of central banking in the United States, England, Europe, and elsewhere, financing governments, managing exchange rates, and supporting economic sectors by using direct methods of intervention have been among the most important tasks of central banking and indeed, in many cases, were among the reasons for their existence. For examples, Japanese central bank supports the government industrial policy through credit allocation policies. France, Italy, Belgium central bank uses variable asset-based reserve requirements, lowering required reserve rates on privileged assets to promote lending to desired sectors such as manufacturing. Evidently, the United of Kingdom (UK) and United States central bank supports the growth of financial sectors. As the aftermath of the crisis, some industrialized economies central banks have power to adopt unconventional monetary policies, particularly such as interest rate mechanism to safeguard debt problems, stagnation, and deflation aimed to ensure the balance of economic development and economic growth. Furthermore, [Date, Florence/Ulrich Volz \(2015\)](#) says that over the past decade, many central banks in developing and emerging economies have begun to place renewed emphasis on the promotion of economic development, structural transformation, looking beyond narrow mandates for macroeconomic stability. The greater appeal of alternative approaches to central banking is related to the blatant failure of the neoliberal economic model as well as the apparent success of more interventionist, development approaches followed by several East Asian economies, including Japan, Korea and China. One area where an increasing number of central banks have become active is improving financial inclusion. In this research paper, Section 2 focuses on literature reviews; Section 3 focuses on methods of industrialized economies central banks' monetary policy in practice; and Section 4 focuses on conclusion.

## 2. Literature Review

[Bernanke \(2010\)](#) says central bank is not an ordinary commercial bank but a government agency. Central bank stands at the center for a nation's financial system, have played a key roles in the development of the modern monetary system. Its mission for macroeconomic stability to strive for low and stable inflation; most of also try to promote stable growth in output and employment and for financial stability to try ensure that the nation's functions properly, importantly, they try to prevent or mitigate financial panics or crises. In the point of view, central banks around the world that is working with their governments to promote and improve economic development and protect financial crisis in the future. [Tily \(2007\)](#) found that the Keynes in 1930 pointed out the highlighted their importance in macro-economy showing the role of central banks in relation to monetary policy. The industrialized economies central banks they stabilize the price level through controls of monetary policy. [Bernanke \(2013\)](#) suggests that expansion of reserve may also produce portfolio balance effects on asset prices. In the point of view (2016), I strongly believe that the monumental behaviorism and courageousness of the central banks are potential factors for the economic development movements, stable economic growth, and the alleviation of financial risk management both in private and public sectors, especially as in the mitigation of the financial burden of government debts and corporate debts too by conducting the central bank monetary mechanism policy included such interest rate policy, and exchange rate regime, however.

## 3. Methods

An industrialized economies central banks use their functions and policies to provide liquidity resources for economic development and economic growth towards to boosting a progress in the modernized society. As to during the time of being Plato prohibited interest taking for loan, but later on, he permitted interest taking as a penalty for delayed payment. Also, Hebrew was asked not to collect interest from poor people because the poor borrowed money mainly for consumption purpose, as noted by [Jhingan and Sasikala \(2011\)](#). In 2016, as well as, I should argue that the national economy's inflation and deflation at downwards and upwards, it does not 100 percentages surely come from the central bank's roles in the monetary expansionary policy with lowering loan

interest rate policy. It may be arrival of the excess production capacities, decreases or increases in households' consumptions, and level of change in price of raw materials such oil, coal, and mine, and so on. As known that the challenge of the Japanese economy under deflation pressures, in case of Japanese central bank needs the end of deflation and higher growth rate of economy with higher inflation target 2% and far more aggressive appears to getting much better output. All for the best, the industrialized economies central banks play important roles of monetary policy in providing financial package with the conditions of conventional interest rate policy for the financial institutions in order to keeping the stability in macroeconomics variables development and promoting the economic growth by a common method of monetary policies. It is reasonably believable that [Irving Fisher](#) details a common interest rate equation to show the relationships between the inflation rate and the normal interest rate. Therefore, it can help for the central banks consider it for a practice in the monetary policy.

$$i = r + \pi, i = r + \pi^e \text{ by } 1 + i = (1 + r)(1 + \pi)$$

where,  $i$ : normal interest rate,  $r$ : real interest rate policy by definition;  $\pi$ : inflation rate in the economy.

Genberge (2008) shows simple interest rate policy equation for the central banks consider it as interest rate policy definition to pursuing macroeconomic stability.

$$i = i^* + \alpha(\pi - \pi^*) + \beta(y - y^*) + \gamma(e - e^*)$$

where,  $i$ : normal interest rate policy is set in response to the inflation gap  $(\pi - \pi^*)$  the output gap  $(y - y^*)$ , exchange rate gap  $(e - e^*)$ . The variables  $i^*$ ,  $\pi^*$ ,  $y^*$ ,  $e^*$  represent the neutral rate of interest, inflation target, potential output, and equilibrium exchange rate respectively. The parameters  $\alpha$ ,  $\beta$ ,  $\gamma$  implicitly depend on the prevailing transaction mechanism.

It seems that the rule allows for possibility that the industrialized economies central banks may wish to resist an appreciation pressures by keeping the interest rate policy at the lower level. In the economic point of view (2016), I estimate the central banks are lowering interest rate policy to support and assist economic activities and the full employment and change in the level of total factor productivity (TFP). It may be reached at the negative interest rate policy it can save the sluggish economy. So this is the interest rate rules presented by;

[Laubach & William \(2015\)](#) shows the natural interest rate policy rule that is applied.

$$r_t^* = c g_t^* + z_t$$

where,  $g^*$  is the estimated trend growth of potential GDP,  $z$  is an unobserved component that is assumed to follow a random walk process,  $c$  is an estimated coefficient that measures the influence of the trend growth rate on the natural rate of interest.  $r^*$  is the natural interest rate policy in period  $t$ . On the other hand, we can examine the studies of [Lien \(2004\)](#) she pointed out that the model of the Taylor rule (1993) for the monetary policy interest rate determination of formulation for the measures of the implications of monetary policy practice in Vietnam. However, as in the empirical study by to show that the optimal weights on output and on inflation in the Taylor rule, the stimulation results suggested that a fairly high weight on inflation (0.7) and just a low weight on the output (0.3) are the optimal choice of the State Bank of Vietnam in the conduct of monetary. But the State Bank of Vietnam focuses the first priority on the inflation but not on economic growth.

Taylor rule (1993) for the monetary policy interest rate determination of formulation:

$$i_t = \pi_t + a_\pi(\pi_t - \pi_t^*) + a_y(y_t - y_t^*)$$

where, the short-term interest rate  $i_t$  is functions of the policy variables including inflation rate  $(\pi_t)$  and real GDP  $(y_t)$ ;  $i_t^*$  is the equilibrium real interest rate,  $\pi_t^*$  is the target inflation rate, and  $y_t^*$  is the trend real GDP (or the potential output). Assumed that  $i_t^* = 2\%$ ;  $y_t^* = 0.50$ ;  $a_\pi > 0$ ;  $a_y > 0$  so the interest rate will be positive position effects on the in real GDP. Taylor (1992) for the monetary policy interest rate determination of formulation:  $i = r^* + P_i + 0.5(P_i - P_i^*) + 0.5(y - y^*)$  where,  $i$ : nominal Fed fund rate,  $r^*$ : real Fed fund rate (usually 2%);  $P_i$ : rate of inflation,  $P^*$ : target inflation rate;  $y$ : logarithm of real output,  $y^*$ : logarithm of output. The central bank has to consider the Taylor monetary policy rule in the determination of interest rate policy.

Assuming that an industrialized economies central banks' low-interest rate policy is able to mitigate financial crisis and financial insolvency of both financial and non-financial institutions in terms of short-term loans, and also promote economic recovery but its adjustment or reform of financial positions all participations in a long-

run. In the United States the monetary is conducted by the Federal Open Market Committee (FOMC). The FOMC consists of 12 members: 7 members of the Board of Governors of the Federal Reserve System, the president of the New York Federal Reserve Bank, 4 of the remaining 11 Reserve Bank presidents, who serve who serve one year terms on rotating basis, and other Reserve Banks presidents participate in deliberations but do not vote. The FOMC meets in Washington DC eight times a year. During the global financial crisis fall in 2008-2009, it can cause major damage to the national economy. The Fed reduces the federal funds rate from 5 1/4 (5.25) percent in September 2007 to nearly zero in December 2008 to support economic recovery. As in the exchange rate regime roles of the central banks this is to increase economic activities, and stability in economy. The another way to impress the economic growth with measures of exchange rate policy, as well as, Boughton (2003) pointed out that the Fleming (1962) refocused Meade’s analysis to examine the consequences of a country’s of a country’s choice of exchange rate regime on the effectiveness of fiscal and monetary policy for regulating domestic output. He argues that more effective under floating exchange rates, both in absolute terms and relative to a fiscal policy action of a given size. He also showed that effect of floating on the effectiveness of fiscal policy as measured as autonomous change in domestic spending with a fixed stock of money was ambiguous. He also compares the effects of monetary policy (thus defined as interest policy), fiscal policy and commercial policy in a flexible exchange rate system and a fixed exchange rate system respectively. I am sure that the exchange rate regime for the national exports promotion, it can help the growing economic growth and full employment stability. As in Figure 1, it shows the Fleming-Mundell model for exchange rate regime may be applied by the industrialized economies central banks in the national economic systems.

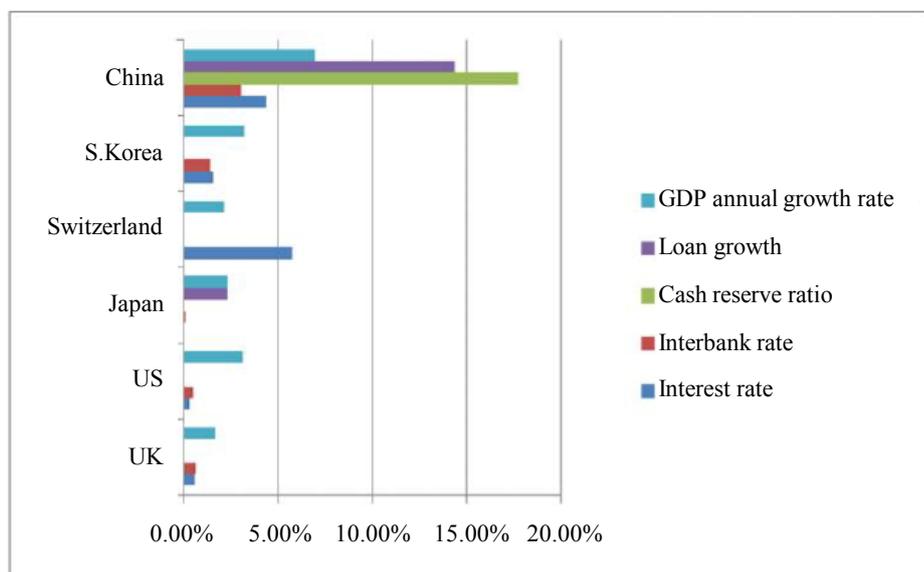
Assumption that a progress in the economic development and increase per capita income of household by measurements of the central banks’ monetary policy have applied in the real and non-real economic sectors. For examples, as mentions in Figure 2 shows that in 2015: China has GDP annual growth rate by 6.5%, interest rate policy by 4.75%; and loan growth by 14.75%. For the United States’ GDP annual growth rate by 3.5% and interest rate policy is nearly zero. For Japanese central bank applied interest rate policy with lowering interest rate nearly zero and GDP annual growth at 2.5%.

#### 4. Conclusion

As improvement on the central banks’ monetary policy power-makers, they should emphasize more the important

| The Fleming model   |   | The Mundell model        |   |
|---------------------|---|--------------------------|---|
| $z \equiv x + g$    | $Z$ =total expenditures; $x$ =private expenditure; $g$ =government expenditure; $y$ =national income;             | $y(y, r, p \cdot e) = 0$ | $P$ =the ratio of domestic to foreign price levels (held fixed in the Fleming model) $p \cdot e$ is real exchange endogenous, Mundell model treats the interest rate, rather than stock of money, as monetary control variable. This equation system therefore can solve for $y, m,$ and $p \cdot e$ as function $r$ . Fiscal policy ( $g$ ) can be added in exactly the same manner as in the Fleming model. |
| $y \equiv z + b$    | $b$ =trade balance, $v$ =velocity of money; $m$ =stock of money;  | $m(y, r, m) = 0$         | In the floating rate case with capital mobility equation:   |
| $v \equiv y / m$    | $n$ =private income; $t$ =tax payments;   | $f(y, r, p \cdot e) = 0$ |   |
| $n \equiv y - t$    | $r$ =interest rate; $e$ =exchange rate (domestic currency price of foreign exchange); $k$ =net capital inflow,    |                          |   |
| $t = t(y)$          | Fleming model can be solved for $y, r,$ and $e$ (or $R$ is $e$ , if $R$ is fixed.); $b=0$ ;                       |                          |   |
| $x = x(n, r)$       | $\Delta R=0$ ; $\Delta e=0$ . In intermediate cases (managed floating), either $R$ or $e$ is a policy instrument. |                          |   |
| $r = r(v)$          |   |                          |   |
| $b = b(z, e)$       |   |                          |   |
| $k = k(r)$          |   |                          |   |
| $y(y, g, r, e) = 0$ |   |                          |   |
| $v(y, r, m) = 0$    |   |                          |   |
| $f(y, r, e, R) = 0$ |   |                          |   |

Figure 1. Fleming-Mundell model for exchange rate regimes-the industrialized economies central banks.



Source: The data (Dec 10, 2015) come from [www.tradingeconomics.com](http://www.tradingeconomics.com). (calculations by author.)

**Figure 2.** Selected industrialized economies central banks balance sheet for monetary policy.

roles of interest rate policy and exchange rate regime in the assistance of economic activities. It has efficiency in the driving economic development and economic growth, particularly as to maintaining of financial stability and stability in macroeconomics variables including inflation, deflation, and full employment and household consumptions. In this paper, to address a common way of the monumental behaviorism and courageousness of the central banks in practice, for that the developing economies central banks' rules of monetary policy decision-makers, they should take into account the methods of Taylor rule, Laubach & William (2015) and Fleming-Mundell model to discuss on the rule of interest rate, exchange rate with economic growth and to think about the relation with the law of diminishing returns or the size of the financial risk management in terms of the policy decisions that could be sufficiently encompassing. Especially for Taylor rule, according to Borio (2011) says that central banks need to reconsider their monetary policy frameworks with a view to ensure symmetry in the conduct of monetary policy over the financial cycle and to better internalize the externalities associated with global monetary policy spillovers. Start in the introduction of policy rules is able in order to achieve the economic productivity, economic growth, particularly per capita increase and constant financial sector.

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